

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)

SETI-0007

Application Number

10/696,693

Applicant(s)

Shur et al.

Filing Date

10/29/2003

Group Art Unit

Unkn wn

*EXAMINER

INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

"Coherent THz Emission in Semiconductors," Semiconductors and Semimetals, Chapt. 8, Vol. 67, 2001, pp.389-440.

"Conductance of Small Semiconductor Devices," A. A. Kastalsky et al. Solid State Comm., Vol. 39, No. 6, 1981, pp. 107-114.

"Impedance of Thin Semiconductor Films in Low Electric Field," K. Lee et al., Journal of Applied Physics, Vol. 54, No. 7, July 1983, pp. 4028-4034.

"Ballistic Transport in High Mobility Semiconductors," M. I. Dyakonov et al., The Physics of Semiconductors, 1996, pp. 145-148.

"Ballistic Transport in a Semiconductor with Collisions," M. Shur, IEEE Transactions on Electron Devices, Vol. ED-28, No. 10, October 1981, pp. 1120-1130.

"Detection, Mixing, and Frequency Multiplication of Terahertz Radiation by Two-Dimensional Electronic Fluid," M. Dyakonov et al., IEEE Transactions on Electron Devices, Vol. 43, No. 3, March 1996, pp. 380-387.

"Shallow Water Analogy for a Ballistic Field Effect Transistor: New Mechanism of Plasma Wave Generation by dc Current," M. Dyakonov et al., Physical Review Letters, Vol. 71, No. 15, October 1993, pp. 2465-2468.

"Plasma Wave Electronics," M. Shur et al., Terahertz Sensing Technology, Vol. 1: Electronic Devices and Advanced Technology, 2003.

"Possible Crystallization of Charge Carrier in Low-Density Inversion Layers," A. V. Chaplik, Soviet Physics JETP, Vol. 35, No. 2, August 1972, pp. 395-397.

"Theory of Surface Waves Coupled to Surface Carriers," M. Nakayama, Journal of the Physical Society of Japan, Vol. 36, No. 2, February 1974, pp. 393-398.

"Preface: High Speed Integrated Circuit Technology, Towards 100 GHz Logic," M. J. W. Rodwell, World Scientific, <http://www.worldscinet.com/ijhses/11/1101/S0129156401000769.html>, pp. 1-2.

"Observation of the Two-Dimensional Plasmon in Silicon Inversion Layers," S. J. Allen, Jr. et al., Physical Review Letters, Vol. 38, No. 17, April 1977, pp. 980-983.

EXAMINER

John L. Parn

DATE CONSIDERED

06/10/04

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

"Far Infrared Emission from Plasma Oscillations of Si Inversion Layers," D.C. Tsui et al., Solid State Communications, Vol. 35, 1980, pp. 875-877.

"High Frequency Conductivity of the High-Mobility Two-Dimensional Electron Gas," P. J. Burke et al., Applied Physics Letters, Vol. 76, No. 6, February 2000, pp. 745-747.

"A Resonant Terahertz Detector Utilizing a High Electron Mobility Transistor," J-Q. Lu et al., IEDM '98 Technical Digest, 1998, pp. 453-456.

"Resonant Detection of Subterahertz Radiation by Plasma Waves in a Submicron Field-Effect Transistor," W. Knap et al., Applied Physics Letters, Vol. 80, No. 18, May 2002, pp. 3433-3435.

"Terahertz Photoconductivity and Plasmon Modes in Double-Quantum-Well Field-Effect Transistors," X. G. Peralta et al., Applied Physics Letters, Vol. 81, No. 9, August 2002, pp. 1627-1629.

"Ballistic FET as Tunable Terahertz Oscillator," M. Dyakonov et al., Proceedings of 2d International Semiconductor Device Research Symposium, Charlottesville, VA, December 1993, pp. 741-744.

"Terahertz GaAs Devices and Circuits for Heterodyne Receiver Applications," T. Crowe et al., Compound Semiconductor Electronics The Age of Maturity: Selected Topics in Electronics and Systems, Vol. 4, 1996, pp. 209-245.

"Materials for Terahertz Science and Technology," B. Ferguson et al., Nature Materials, Vol. 1, September 2002, pp. 26-33.

"A Novel Schottky / 2-DEG Diode for Millimeter- and Submillimeter-Wave Multiplier Applications," W. C. B. Peatman et al., IEEE Electron Device Letters, Vol. 13, No. 1, January 1992, pp. 11-13.

"Plasma Wave Electronics: Novel Terahertz Devices Using Two Dimensional Electron Fluid," M. Dyakonov et al., IEEE Transactions on Electron Devices, Vol. 43, No. 10, October 1996, pp. 1640-1645.

"A Schottky/2-DEG Varactor Diode for Millimeter and Submillimeter Wave Multiplier Applications," W. C. B. Peatman et al., The Third International Conference on Space THz Technology, Ann Arbor, MI, March 24-26, 1992, pp. 1-17.

"Narrow Channel 2-D MESFET for Low Power Electronics," W. C. B. Peatman et al., IEEE Transactions on Electron Devices, Vol. 42, No. 9, September 1995, pp. 1569-1573.

EXAMINER

DATE CONSIDERED

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"Plasma Wave Electronics for Terahertz Applications," M. Dyakonov et al., Terahertz Sources and Systems, NATO Science Series II, Mathematics, Physics and Chemistry, Vol. 27, 2001.

"Resonant Detection and Frequency Multiplication of Terahertz Radiation Utilizing Plasma Waves in Resonant-Tunneling Transistors," V. Ryzhii et al., Journal of Applied Physics, Vol. 88, No. 5, September 2000, pp. 2868-2871.

"Terahertz Photomixing in Quantum Well Structures Using Resonant Excitation of Plasma Oscillations," V. Ryzhii et al., Journal of Applied Physics, Vol. 91, No. 4, February 2002, pp. 1875-1881.

"The Ballistic Nano-Transistor," G. Timp et al., IEDM Technical Digest, 1999, pp. 55 - 58.

"Transistor Characteristics of 14-nm-Gate-Length EJ-MOSFET's," H. Kawaura et al., IEEE Transactions on Electron Devices, Vol. 47, No. 4, April 2000, pp. 856-860.

"Novel Heterodimensional Diodes and Transistors," M. S. Shur et al., Solid-State Electronics, Vol. 38, No. 9, 1995, pp. 1727-1730.

"Comparison of 2-D and 3-D Side-Gated FETs," M. J. Hurt et al., Proceedings of International Semiconductor Device Research Symposium, Vol. 1, Charlottesville, VA, ISBN 1-880920-04-4, December 1995, pp. 79-82.

"Two Dimensional Electrons in Field Effect Transistors," M. S. Shur et al., International Journal of High Speed Electronics and Systems, Vol. 9, No. 1, March 1998, pp. 65-99.

"Ballistic Transport in Semiconductor at Low Temperatures for Low-Power High-Speed Logic," M. S. Shur et al., IEEE Transactions on Electron Devices, Vol. Ed-26, No. 11, November 1979, pp. 1677-1683.

"Low Ballistic Mobility in Submicron High Electron Mobility Transistors," M. S. Shur, IEEE EDL, Vol. 23, No. 9, September 2002, pp. 511-513.

EXAMINER

DATE CONSIDERED

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